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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,035	11/03/2003	David Christopher Burden	200309887-1	3386

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER
PATEL, ANAND B

ART UNIT	PAPER NUMBER
2116	

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>18 July 2006</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>20-27 and 30-32</u> is/are pending in the application.

  4a) Of the above claim(s) <u>1-19,28 and 29</u> is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>20-27 and 30-32</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>03 November 2003</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a) ☐ All b) ☐ Some * c) ☐ None of:

    1. ☐ Certified copies of the priority documents have been received.

    2. ☐ Certified copies of the priority documents have been received in Application No. _____.

    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: there is no Brief Summary of the Invention.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 30 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The computer-readable medium claimed in the preamble of the claim contains non-statutory subject matter. As described in the specification, computer-readable media can contain transmission media, which is not tangible. Applicant is advised to rewrite the claim to embody only tangible media (non-volatile and volatile media as per the specification).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 20-29, 31-32 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No 6173408 to Jimbo et al (Jimbo).

- As per claims 20, 32, Jimbo discloses a method, comprising:

- Determining an operating frequency of a frequency scaleable processor (inherent given figure 17, NUMBER OF EXECUTION CYCLES);

- Examining a power data associated with a process (figure 17); and

- Selectively scheduling the process for processing by the processor based, at least in part, on the operating frequency of the processor, and the power data (column 7, line 23 – column 8, line 8).

- As per claim 21, Jimbo discloses the method where the power data describes one or more events associated with the processor processing the process (figure 17).

- As per claim 22, Jimbo discloses the method where the events include one or more of, the process not previously being run, the operating frequency of the processor increasing during processing, the operating frequency of the processor decreasing during processing, and the operating frequency of the processor not changing during processing (figure 17; frequency does not change).

- As per claim 23, Jimbo discloses the method where selectively scheduling the process for processing includes generating one or more signals that cause the processor to process the process (column 7, line 23 – column 8, line 4).

- As per claim 24, Jimbo discloses the method where selectively scheduling the process for processing includes generating one or more signals that cause the process to be logically located at a selected location in a data structure that is organized by process schedule order (column 7, lines 23-34).

- As per claim 25, Jimbo discloses the method where selectively scheduling the process for processing includes storing one or more values in a data structure that is organized by process schedule order (column 7, lines 23-34; 502).

- As per claim 26, Jimbo discloses the method comprising:

- Examining a processor data associated with the frequency scaleable processor (figure 17);
and

- Selectively scheduling the process for processing based, at least in part, on the processor data,
the operating frequency of the processor, and the power data (column 7, line 23 – column 8, line
8).

- As per claim 27, Jimbo discloses the method where the processor data describes one or more of, a
processor temperature, a processor temperature history, a change in the processor temperature, a
processor power consumption, a processor power consumption history, a change in the processor
power consumption, a current flowing through the processor, a processor current history, and a
change in current flowing through the processor (figure 17; processor power consumption).

- As per claim 31, Jimbo discloses a system, comprising:

  - Means for determining an operating frequency of a frequency scaleable processor (inherent
  given figure 17, NUMBER OF EXECUTION CYCLES);

  - Means for determining a change in the operating frequency of the frequency scaleable
  processor (inherent given NUMBER OF EXECUTION.CYCLES and corresponding
  PREDICTED POWER CONSUMPTION);

  - Means for evaluating one or more power attributes associated with an executable entity
  (figure 17); and

- Means for scheduling the executable entity for execution on the frequency scaleable processor
based, at least in part, on the operating frequency, the change in operating frequency, and the power
attributes (column 7, line 23 – column 8, line 8).

Conclusion

6. Examiner notes that should claim 30 be rewritten to overcome the rejection under 35 U.S.C. 101 above, the claim would be rejected under grounds similar to those of claim 20.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent No 6091255 to Godfrey teaches scheduling tasks based on a frequency and temperature of a processor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anand Patel whose telephone number is (571) 272-7211. The examiner can normally be reached on Mon-Fri 8AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LYNNE H. BROWNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

ABP